

92110
INTRODUCTORY LECTURE,

DELIVERED AT THE

OPENING OF THE SESSION

OF THE

MEDICAL COLLEGE of the STATE of S. CAROLINA,

ON THE

SECOND MONDAY OF NOVEMBER, 1837.

By E. GEDDINGS, M. D.

PROFESSOR OF PATHOLOGY, AND MEDICAL JURISPRUDENCE,
AND DEAN OF THE FACULTY.

Published by the Class.

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DEAR SIR,

At a meeting of the Class of the Medical College of the State of South-Carolina, held in the Anatomical Room, this afternoon, at 4 o'clock, it was unanimously resolved by them, to tender you their grateful acknowledgments for the pleasure and instruction which they derived from your eloquent Introductory Essay; and as a mark of respect for your talents, they have appointed us, the undersigned, as a Committee, to communicate to you their sentiments, and also to request of you a copy of your Introductory Lecture for publication. We hope that their application will meet with your approbation.

Accept, Dear Sir, in behalf of the Class, considerations of regard and esteem entertained by

Yours, very respectfully,

WM. D. JONES,
B. C. ROBERTSON,
D. J. CAIN,
H. B. BARKSDALE,
JOHN C. GLEN,
CHARLES B. STONE.

To Professor GEDDINGS.

GENTLEMEN,—

In reply to your note, conveying the flattering approbation of my Introductory Lecture, expressed by the Class, and requesting a copy for publication, I beg leave to state, that were I to consult my own estimate of its merits, I should greatly prefer to withhold it from the press. As, however, the Address was designed to subserve the interests of the Class, I do not feel myself at liberty to decline the unanimous wish of its members to give it publicity, and shall accordingly furnish a copy for that purpose.

Be pleased to convey to the members of the class, the expression of my gratitude for their flattering estimate of my abilities, and accept for them, and for yourselves, the assurances of my high regard.

E. GEDDINGS.

To Messrs. WM. D. JONES,
B. C. ROBERTSON,
D. J. CAIN,
H. B. BARKSDALE,
JOHN C. GLEN,
CHAS. B. STONE. } *Com. of Class*

Medical College of the State of So. Ca., Charleston, Nov. 27, 1837.

LECTURE.

GENTLEMEN,

SIX years ago, yielding to the flattering invitation of the Trustees of the University of Maryland, to accept an appointment in that Institution, I was induced to sever the ties which had bound me to the land of my childhood, to cast my fortunes amongst scenes that were new, and a community of strangers. The moment was one of deep and thrilling anxiety. I was about to abandon all the endearments of early associations, and of "friends that were tried," to take up my abode amongst a people unknown to me,—uncertain of the destiny that awaited me, and without any assurance, that I should there find, a single kindred spirit to fill the niche of friendship, rendered vacant by those I was about to leave behind. The reflection sunk deep in my heart, and I felt in their full force, the beautiful sentiments of the inimitable author of the Sketch Book: "As I saw
' the last blue line of my native State fade away like a
' cloud in the horizon, it seemed as if I had closed one
' volume of the world and its concerns, and had time
' for meditation, before I opened another. That land
' too, now vanishing from my view—which contained
' all that was most dear to me in life—what vicissitudes
' might occur in it—what changes might take place in
' me, before I should visit it again! Who can tell when
' he sets forth to wander, whither he may be driven by
' the uncertain currents of existence; or when he may

‘ return ; or whether it may ever be his lot to revisit
 ‘ the scenes of his childhood ? ’

It was with feelings such as these, that I bade adieu to my first home ; that which had given me existence ; had nurtured, and sustained, and honored me, far beyond my deserts—to seek a second, in a community, every individual of which was unknown to me ; where I could not expect to secure to myself, one congenial impulse, hallowed by previous friendship, or at best, realize more, than the formal boon of hospitality, usually meted out to ordinary adventurers.

With these reflections weighing upon my mind, I arrived at my destined second home. But if I had experienced sadness at the sacrifice of so much that was dear to me, I soon felt reconciled to my new situation ; for although amongst strangers, I was welcomed with so much cordiality, and was so overwhelmed with kindness, that I almost fancied myself in the midst of friends, endeared to me by years of familiar intercourse. Instead of the cold and formal hospitality which I had anticipated, I received the cordial greetings of a warm hearted people, who lavished upon me the strongest evidences of their kindness and regard, and notwithstanding I had but just arrived among them, made me feel, that I had here found a home, well calculated to compensate for the one I had left behind.

But who can pretend to foresee the workings of destiny ! Mine was doomed to experience another change ; and that home which I had left with the painful forebodings that I had bade adieu to it forever, was destined to recall me to its bosom, and receive me back, after years of absence, with all the kindness it had before extended to me. Although I found in the high confidence which was extended to me—in the nume-

rous and warm friendships which I had the honor to enjoy—every incentive to attach me to the home of my adoption, it was not until the period arrived which was to sever those ties—when my newly acquired friends and professional brethren, with general accord, united in paying me the highest tribute of regard, a medical man can receive—that I felt how close were the bonds that united me to those, from whom destiny compelled me to part. As a stranger, they had received me with kindness; as acquaintances, they honored me with a friendship, which I shall hold in grateful remembrance to the latest hour of my existence. But although such associations could not be interrupted without a pang, I should do injustice to my feelings, were I not to confess that the happiest moments of my life were those I experienced, when “I again saw the blue line of my native State, rising in a cloud in that horizon, where, so many years before, I had seen it fade away.”—“My heart throbbed with pride and admiration as I gazed upon it—I gloried in being her son.” Scenes of bygone days rushed upon me with all the vividness of first impressions. Old friendships have been revived—new bonds of attachment to my first home have been woven in my heart, and no temptation which either time or circumstance can bring about, shall ever induce me to sever those bonds, or withdraw my humble exertions from a devotion to the interests of the land of my birth and early years.

. Amongst these interests, those which relate to the noble Institution, in whose walls we are now assembled, occupy a pre-eminent rank. Although young in years, unaided by State patronage or public endowment, and with nothing to sustain it, save the untiring zeal, and solid abilities of its Faculty, it has already grown to the

vigor of manhood, and from its quiet and unostentatious portals, its benefits have been diffused far and wide, over the broad domains of our country, every where dispensing the blessings of health and happiness, in the abodes of sickness and affliction.

It is now scarcely thirteen years, since part of the gentlemen composing the present Faculty, together with others formerly associated with them, first conceived the design, at that time deemed visionary, of organizing a Medical College in Carolina. Notwithstanding the difficulties and discouragements which beset the first inception of their enterprize—many of them of a character well calculated to damp the ardor of the most devoted philanthropist—they soon had the satisfaction to rear upon our Southern shores, the first temple dedicated to the purposes of medical education. With no pecuniary aid but that abstracted from their own scanty resources—with no other encouragement than that afforded by their individual zeal, and their ambition to benefit society, they provided means and appliances for medical instruction, and thus laid the foundation of an Institution, which now ranks as one of the proudest monuments of our State. Although its commencement was humble and unimposing, it succeeded in attracting a few zealous students, and it is with feelings of pride, that I can now indulge in the grateful reflection arising from my having been one of that primitive band. Then an humble votary in the infant temple of the healing art, I had the honor—one which I shall prize to the last hour of my life—of receiving from the hands of those who are now my colleagues, the first medical degree ever conferred under the authority of my native State. Since then, I have had the high gratification to see my young *alma mater* growing rapidly in her strength, and

notwithstanding the adverse influences that for a season opposed her prosperity, advancing with firm and steady pace to the proud pre-eminence she now occupies. She has already secured for herself the highest rank amongst the most distinguished schools of our country, and although no civic crown may be woven to deck the brows of those who nurtured her into existence, and supplied the elements of her prosperity, the benefits they have conferred will secure a place for their memory, in the hearts of posterity. To their united exertions is the South mainly, nay, exclusively indebted, for having wiped off the approbrious stigma, so long fixed upon her, of a servile dependance upon the North, for the education of those who were to be entrusted with the health and lives of her citizens; and to them belongs the honor of dispelling the delusion, so fatal to our best interests, that to acquire the principles of medical science, our youth must abandon the endearments of home; endure all the rigors of a Northern winter—often fatal in its influence—and removed from the salutary control of paternal restraint, incur the risk of falling victims to the temptations of vice and immorality.—The experiment so nobly conceived by them, and so ably carried out, has proved to demonstration, that in medical education, as in other matters, the South need acknowledge no dependence upon foreign aid, and that put in motion by her own resources, streams of medical knowledge may flow from the banks of the Ashley, as rich as ever set from the shores of the Delaware, the Chesapeake, or the Hudson. Why indeed should any inferiority be acknowledged? Is there any thing in a Southern sky, to check the flights of genius, or impoverish the springs of science? Is there aught in our situation—climatorial or social—to impress the

stamp of imbecility upon intellect, or palsy the powers of thought? Is man so degraded here, that the sources of knowledge should be shut out from him, because he lives under a Southern sun? Or is there any mysterious quality in science, to restrict it to particular parallels of latitude? If these questions could be answered in the affirmative, then might we, indeed, be compelled to adopt the humiliating alternative, of depending upon others for what nature had denied to ourselves, and acknowledging our degradation, seek in more favored sources, the lights of science to illumine the darkness of our dull understandings. Far different is the reality.—Take but a glance at the page of our country's history, from the earliest hour of her struggle, up to the present time, and you will find that the talent of the South, has shown forth “a brilliant constellation,” through every change, and under every difficulty. Her Generals and her Statesmen; her Jurists, her Physicians, and even the body of her Citizens, have ever stood pre-eminent. Their names are recorded on the tablet of their country's annals; the sun of genius has never yet set upon them; but clear, serene, and vivifying as the native Southern sky, it every where animates, and cheers, and fertilizes, by its genial influence. Since the earliest period of our colonial history, Southern physicians have occupied a rank for talent and professional skill, equal, if not superior, to that attained by those of any other section of our country, and although they could not, until recently, count amongst themselves any professorial dignitaries, their reputation has spread, wherever medical science is cultivated. Such was our Chalmers, our Garden, our Moultries, and our Lining;—our Baron, our Ramsay, our Harris, our Wilson, and our Irvine. Their fame is a part of Carolina's history;

and her sister States, Georgia and North-Carolina, can boast of their Bibbs, their Kollocks, their Watkins', their Abbotts, and their Williamsons—all distinguished in their day—while the whole South can exult in a long list of living physicians, whose names stand high on the rolls of fame.

Shall we then submit any longer to the degrading and humiliating alternative of seeking from others, that in which we are rich ourselves? Shall we continue to proclaim the poverty of our scientific resources and acquirements, while surrounded by opulence? Shall we persist longer in closing our eyes to the gifts that God has given us, and set ourselves down in the embraces of indolence, invoking the aid of Hercules, to accomplish what our own endeavors can easily achieve without assistance? It is time the people of the South should awaken from their lethargy, and reflect upon their true interests. The period has arrived, when it becomes them to consider dispassionately, if others have not been fattening upon their substance, while they have laughed in secret at their follies; and if the millions they have caused to flow into Northern coffers, could not have been more appropriately and profitably expended at home. I trust that sectional prejudice will never find a lurking place in my bosom; but as a native of the South, I shall ever feel too lively an interest in Southern institutions, to suffer myself to become reconciled to what I consider a most blind and deplorable delusion, in regard to our true policy. What has given us our exalted rank in politics, but a stern reliance upon our own resources, and the development of our native energies? Where did we obtain our Statesmen? Whence did we derive the chivalrous spirit for which our citizens are noted? Are they not all the natural offspring

of Southern energy and influence—nurtured into vigorous existence, by a warm devotion to the interests of our political and social relations? If such then, are the native fruits of our soil—the high and commanding results developed by a cultivation of our own powers—why should we in other matters, in which our means are not less abundant, place our reliance upon foreign aid, and while we enrich other institutions with our substance, suffer our own to languish for want of subsistence? I thank God, that the people begin to see their error in these matters; that they have been taught to look around them—to calculate their resources, and consider their interests. Although there are still some, foolish and absurd enough to make a pilgrimage to the North, to consult some third-rate professor for a colic, or to be tortured by some boasting knight of the scalpel and cautery, on account of a trifling excrescence, the more sensible part of the community begin to realize the conviction, that their diseases can be as well cured, and their surgical operations as skilfully performed, by their own physicians and surgeons, as by those whose aid their misguided credulity formerly induced them to seek, under heavy sacrifices of feeling, comfort, and even fortune.

Our public institutions have already experienced the ameliorating influence of this change of sentiment. It has displayed itself, not less in relation to medical education, than to other matters, all of which were formerly made to languish under the blighting control of a popular delusion. What more cheering evidence of this salutary revolution could be offered, than is afforded by the rapid advances in prosperity made by the noble Institution in which we are now assembled? What more flattering proof of its wide-spreading and

salutary influence, than to see so many of you congregated here, from every part of our extensive country—demonstrating by your presence, your confidence in Southern talent and enterprize, and manifesting your determination to rally round Southern institutions. Of the great number of which our State can boast, all deserving to be sustained, I know of none possessing stronger claims to attention, than that in behalf of which I now address you. I rejoice, therefore, that I am permitted to meet you assembled within these halls, consecrated to the interests of science and humanity. The honor dearest to my heart, is embraced in the signal privilege I now enjoy, of giving you, in behalf of my colleagues and myself, a cordial welcome to the threshold of that *alma mater*, which cherished me as her first offspring, and to whose fortunes my future life and exertions stand devoted. She receives you with open arms, ready to bestow upon you all those cares and attentions necessary to prepare you for the discharge of those important offices which you have resolved to make the end of your future labors.

To profit by the instructions she is prepared to deliver, you have abandoned the quietude and endearments of your homes, and to qualify yourselves to relieve the sufferings of your fellow-beings, you have assembled here. You have congregated around the altars of science, to become initiated into her most important mysteries; but above all, to study the physical organization of man; to acquire a knowledge of the vital laws which govern its operations; its various states of health and disease; the means of relieving the long catalogue of ills to which it is liable, and preserving it from destruction. You could not have embarked in a more laudable pursuit. There is no subject that de-

serves more to engross all the energies of an intelligent being, or that is better calculated to exalt and dignify his nature, and entitle to him the commendations of the philanthropist. The sneers of the satyrist cannot detract from the dignity of your calling. It is founded in benevolence—the noblest principle of human nature; its exercise is alike grateful to him who gives, and him who receives and although it has been defined, “a melancholy attendence on misery; a mean submission to peevishness; and a continual interruption of pleasure:” it was well said by Cicero, that man is in no respect so closely assimilated to the Gods, as in restoring health to his fellow men.

As a preliminary to the diversified details of medical science which will be brought before you in the course of instruction upon which we are about to enter, it may be useful on the present occasion, to take a cursory glance of the leading divisions of the subject, in order that you may be better enabled to see their relations—to form a just estimate of their importance, and to arrange for yourselves a plan of study, by which your labors may be profitably directed.

As the relief of the physical and moral afflictions of man, or in other words, the preservation of his health, and the cure of the multitudinous ills to which his corporeal frame is liable, are the ends of the God-like science you have adopted, the first object to claim your attention is, obviously, the study of his organization. Before you can understand the character of the derangements which are incessantly taking place in his complex machinery, or qualify yourselves to restore its healthful operations, when disturbed, it is indispensably necessary that you should possess an accurate knowledge of organized beings, and especially of the form,

relations, and composition, of the animal organization; the affinities existing between all its parts; its vital endowments; and the functions by which it lives and is perpetuated. You should, in short, acquire clear and definite views of the properties of the organs, both in their dead and living states—of the arrangement of their organic elements, and the various modifications impressed upon them, under the influence of their vital properties. The first category of phenomena, falls properly within the province of the Anatomist: the second, or the examination of the organization in its living, or active state, belongs to the domain of physiology.

But when I speak of Anatomy as one of the first objects to claim your attention, I do not mean mere mechanical dissection, or the disgusting dismemberment of muscles and organs; but anatomy in its more broad and philosophical scope, as it has been unfolded and extended by the united labors of its votaries in modern times. I wish you to understand it, not as a mere mechanical art; but as a science rich in its relations, and fruitful in its application, comprising within its circle, the whole philosophy of organized bodies, and spreading its broad domain over the whole range of vegetable and animal creation. Considered in these, its proper relations, Anatomy takes cognizance of the entire series of organized beings. It analyses every object; it seeks to penetrate every mystery, which nature, jealous of her works, strives to veil from our comprehension, and wherever it applies its resources, reveals to us the varied beauties and attractions of living creation. It spreads before us the structure and vital economy of the countless living forms, which people earth, air, and ocean; and whether applied to the organization of the simple conferv, the monos termes, the lowest produc-

tions in the scale of vegetable and animal life; or to the more complicated and highly finished organs of lordly man, who stands pre-eminent above all the rest of living creation, it every where displays an admirable adaptation of instruments to the necessities of the individual, and proclaims the wisdom of him, "who framed this mighty scale of beings." It traces through their diversified forms, a unity of design; co-ordinates them all into one scheme of harmony; displays a perfect and regular gradation and conformity in all their divisions; and unites them all into one great chain, corresponding in all its links, in which

"Nothing is foreign—parts relate to whole;

"One all extending—all pervading soul

"Connects each being greatest with the least."

"——— Nothing stands alone—

"The chain holds on, and where it ends unknown."

But this important branch of science presents itself under several relations, more or less different from each other, as regards the objects it proposes to accomplish, or its practical application. The first and the most extensive in its range, is that which has received the appellation of philosophical, or transcendental anatomy. It chiefly considers the animal organization in its totality, and only individualizes the parts of which it is composed, so far as to determine the presence or absence of a particular organ, in any one of the classes, races, or tribes, included within the scale of animals, from the highest to the lowest. The precise form, nature, texture, and composition of an organ, is of but little importance to the transcendental Anatomist;—the end of his labors being, rather to determine the presence of a particular instrument, in the several tribes, and to trace it through its various modifications, as exemplified in its different degrees of developement in the higher and

lower classes. By this course of investigation--by a philosophical generalization of facts, he finally arrives at the important and interesting conclusion, that however diversified the forms and other characters of the organs, in the higher and lower classes, they are in all radically the same; the identical organs being found to exist in the whole series, being only more perfectly developed in those which occupy the top of the scale, while in those constituting the lowest links in the chain, they merely exist as nuclei, or in a kind of rudimentary state. Between the two extremes, there is a kind of progressive improvement in perfection observed, as we ascend from the lowest to the highest; the improvements in the latter being made by successive additions to the most simple organs of the former. Thus, "the splendid human organization itself, consists nearly of precisely the same organs, only more developed, as exist in the *Polypi*."

This department of Anatomical science, is as old as Aristotle; but the fulness of its riches was not displayed, until within the last quarter of a century. The labors of Lamarck, of Geoffroy St. Hilaire, father and son, of the Meckels, Tiedemann, the Treviranuses, Rathke and Baer, Müller, Serres, Coste, and others, have, by exploring its intricate laws, developed some of the most important principles which have marked the improvements of Physiology and Pathology in modern times. It reveals to us the obscure and mysterious changes which attend the progressive evolution of the organs. It unfolds to us the varying types they present at different stages of their developement; and it is only by availing ourselves of its lights, that we can explain the endless departures of the organs from their normal arrangement, as exemplified in those unseemly and hide-

ous developements, called monstrosities, malformations, &c. It also furnishes to the Zoologist, a thread to conduct him through the devious mazes of animal creation; yet, notwithstanding it is capable of doing all this, it will not of itself, be adequate to subserve all your purposes. While, therefore, you may invoke its laws, to reveal to you the beautiful and recondite mysteries of the noblest works of creative wisdom:—while you may suffer your selves to take an occasional flight into the fairy realms it spreads before you, it will be necessary, in order to qualify yourselves for the more sober and responsible task, of studying the characters and treatment of disease, for you to leave these attractions, and direct your chief attention to the less captivating, but more useful investigation of textural and special anatomy; the first, having for its object, a knowledge of the elementary arrangement of the structures of the frame; their intimate composition; the relation of their component parts, the elements which enter into their composition: and their physical and vital endowments. The second, or special anatomy, is more particularly concerned with the consideration of the situation, either absolute or relative, of the different organs; their volume, weight, configuration, &c., and does not take special cognizance of their intimate texture.

The former is most important to the Physiologist and Pathologist; the latter to the Surgeon. The first, usually denominated general Anatomy, makes us acquainted with the physical, chemical, and vital properties of the solid and fluid elements composing the animal organization. In its application, we resolve the complex organs into tissues, possessing different properties and susceptibilities; and of these tissues, those which are most complex, we reduce into others more

simple in their composition, and by an intimate analysis, trace them all to a few proximate elements differing but slightly from each other, notwithstanding the great diversity they present in their proper forms and texture. The entire animal organization can thus be traced through different degrees of complexity, as regards its various parts—from the most simple tissue, in which the phenomena of organization can be recognized, to the most complicated organ, made up of two or more dissimilar tissues. By pursuing this course, we penetrate below the surface of the various objects which pass under our observation: we are not content with superficial views, but diving into all the intricacies of organic composition, and approaching the mysterious laboratory of nature, we wrest from her an explanation of that “mighty maze,” through which she reveals all the intricate workings of vitality.

This department of Anatomy, almost entirely the creation of the present century, and for which we are indebted to the transcendent genius of Bichat, is to the votaries of medical science, what the thread of Ariadne was to Theseus:—it furnishes a clue to conduct them through all the intricate windings of physiology, pathology and therapeutics. It was like a beacon light, springing suddenly up in the midst of a sea of error, directing the benighted wanderer upon the waste of waters, to the haven of true and legitimate principles; and it is mainly to the attention it has received since the time of Bichat, that we are to attribute the rapid improvements which have taken place in medical science, within the last thirty years. By its diligent cultivation, a new direction has been given to our investigations, and the rich treasures which it is every day bringing forth, contribute incessantly to fertilize the

whole range of physiology, pathology, and therapeutics, by the progressive accumulation of new and invaluable principles.

But indispensable as is a knowledge of texture, your investigations must take a still wider scope. You must next study the tissues, both simple and compound, as they are grouped together to form organs, or instruments, and observe the manner in which these are associated into systems, each performing its appropriate function; all united by an intimate bond of sympathies, and notwithstanding their diversity of form and office, co-operating in the accomplishment of those acts, by which life is maintained and perpetuated. Though less valuable than geneneral anatomy in aiding us in the investigations of the more delicate and obscure phenomena of healthy and diseased action, special Anatomy is indispensable to both physiologist and pathologist; and to the surgeon, it may be truly regarded in the light of both chart and compass. It will guide him in safety through the most appalling dangers. It will steady the hand, when the stoutest heart, without its support, would quail at the sight of the life blood gushing from its native fountains. It will direct the knife of the operator with certainty and security, even where the vision cannot penetrate; and when the tenure of life hangs upon a thread, it will lend its assistance, and repel destruction. "When," says one of the most distinguished of living surgeons, "I shall cease to cultivate Anatomy, 'my lectures and daily practice, will no longer afford 'me any interest. This, however, can never happen; 'for when I look forward to a happy old age, I console 'myself with the reflection, that although the eye and 'hand may grow feeble, Anatomy will come to their 'support.'"*

* Langenbeck, *Nosologie und Therapie der Chirurgischen Krankheiten*.

But, Gentlemen, to reap all these advantages from Anatomy, a mere superficial knowledge will not suffice. Students are too apt to persuade themselves, that when they have learned a few processes and formina by rote, and mutilated a few muscles;—when they can repeat the principal divisions of the liver or the intestines, and indicate the situation of a few arteries, they have all that is necessary to guide them in practice, and, ridiculing what *they* term the minutiae of the science, they vainly delude themselves with the belief, that they are in possession of what is vauntingly proclaimed as *practical* knowledge. There are, unfortunately, too many, who, to screen their own ignorance, or to find security in their indolence, give currency to this fatal error, by inculcating such notions *ex cathedra*, and by discoursing learnedly about the necessity of giving to lectures a *practical* character, divert the minds of their pupils by such empty sophistry, from that train of investigation, which is indispensably necessary to make them either good physiologists, sound pathologists, or successful practitioners. It is amongst this class, that we find those who decry general anatomy; who have the sober audacity to declare, in the face of the conviction of the whole enlightened part of the profession of the present century, that pathological anatomy is mere useless jargon; and while they edify their audience with superficial prelections on anatomy, “patched and garnished with trimmings of physiology, pathology, and therapeutics,” look with sovereign contempt upon the splendid discoveries of a Bellingieri, a Bell, a Magendie, a Panizza, and a Müller, which, by all enlightened physicians, are regarded as the greatest boast of the nineteenth century. Now, although I would not have you spend your time in unravelling the muscles

of a caterpillar, or consume all your time in the pursuit "of a new conferva in the intestines of a cockroach," I am anxious that you should not form an erroneous conception of the kind and amount of anatomical knowledge you should possess, and to guard you against the hue and cry of those self-sufficient pretenders, who embrace under the sweeping curse of *minutiæ*, those important parts of anatomy, which, in the plentitude of their ignorance, they do not understand. Such idle praters "should be shunned as absolute imposters—as 'a race of *fainéants*, who belong as certainly to a former age, as if they had been born two centuries ago."

You may think, Gentlemen, that I have spoken in unnecessary detail of anatomy. Its importance is universally acknowledged, but an experience of years has convinced me, that it is not sufficiently appreciated by students of medicine. Were these the last and only words I had to address to you, I would conjure you to study it with patience and diligence. It will reward you to the latest hour of your existence; and without it you can never become distinguished, or extensively useful in your profession. You must not suffer the prejudices of education, or those absurd superstitions which are apt to seize upon the best of us, to deter you from the pursuit. It is attended, it is true, with circumstances at which the feelings are too apt to revolt; but these must not be permitted to interrupt your progress. It brings man before you under his most humiliating aspect—a mass of dead matter, heaped upon the dissector's table—cold, senseless, motionless, and ghastly—with the seal of destruction already fixed upon his complex machine, and the forces of decomposition ravaging his organs;—"yet is there beauty in his lifelessness;" there's loveliness in his decay—"which

breathes and lingers round;" for in his instruments, reeking in filth, and noisome with the products of decay, it will be permitted you to contemplate the citadel of the immortal essence, which once served to impress upon it animation and loveliness. Life has forsaken it, but there is nothing hallowed in its frail and perishable tenement, to prohibit you from approaching it.

"Why, indeed, should the worthless tegument endure,

"If the undying guest be lost forever!

"Far better keep the soul embalmed and pure,

"In living virtue, that when both must sever,

"Although corruption may the frame consume,

"Th' immortal spirit in the skies will bloom!"

In the dissection of the dead, you indeed only anticipate the ravages of time, and in cheating certain destruction of his prey, provide for the well being of the living; for—

"Naught decays, untired rapacity can cloy:—

"Monarchs and slaves are all the earth-worm's food;

"And the wild-raging elements destroy

"E'en the recording tomb. Vicissitude

"Devours the pride of glory; as the sea

"Insatiate drinks the waters, so our days

"And years are lost in deep eternity;—

"Cities and empires, vandal death decays."

Having determined the texture, composition, forms, and relations of the organs, the next step is to study the functions of its different parts. Anatomy merely spreads before us the various parts of the organization in their dead or passive state, and shows their adaptation to the necessities of the individual, or their fitness, as instruments, to perform those diversified and mysterious acts which fill up the great scheme of animal life. Physiology animates them. You must, therefore, pass from the mere contemplation of the dead and ghastly frame, to the more attractive consideration of its various parts in the living state—in which life and beauty glow in every lineament; dignity and grace

adorn every action. Viewed in these relations, you study man in his most ennobling attributes; his organs acting under the impulses of the various impressions to which they are exposed; himself susceptible of all the pleasures and pains which are the lot of his destiny; his existence preserved and perpetuated by the concurrent functions executed by his organs; and in the plenitude of his intelligence, seeking to penetrate into all the mysteries of creation, and graduate them all by the measure of his own understanding:—noble in reason—infinite in faculties—and in the majesty of his nature, standing pre-eminent in the scale of creation—spurning the humble destinies of all other beings, and aspiring to immortality.

The study of the organization in this, its living state, is the province of the physiologist, and I cannot too strongly impress upon your minds, the importance of this department of medical science. Without it, anatomy itself, would be a barren waste—an idle and disgusting pursuit; but enlivened by physiology, it becomes clothed in attractions, and inestimable in its applications. But when I speak of the importance of physiology, I do not mean the vague tissue of speculations, which, like a rotten excrescence, formerly deformed the temple of medical science; but that physiology—the offspring of a rigid analysis, strict induction, and patient observation, which, commencing with the great Haller, has been enriched by subsequent cultivators—by such men as Blumenbach, Magendie, Rudolphi, Tiedemann and Gmelin, Burdach, Bell, Muëller, and a host of others, who deduced their facts from the study of nature, and tested them by the severe discipline of experiment. This is the only species of physiology to which I would have you direct your attention. Found-

ed on the solid basis of anatomy, you will find the two branches of science marching hand in hand, mutually illustrating each other, and in turn, fertilizing the whole range of pathology and therapeutics. If, therefore, you test all your inductions, in this department, by the compass and square of anatomy, you will be soon able to detect the spurious physiology to which I have already alluded, with which our science is unfortunately too much encumbered. The offspring of closet speculations—the mere fine-wrought gossamer web of some visionary's brain, who perhaps never dissected a body, it is only calculated to lead you into inextricable error, and, *ignis fatuus* like, decoy you from the path of truth.

Fortunately, you will enjoy every opportunity in the Institution which you have selected, to prosecute with advantage, these important branches of your medical studies. It is with feelings of pride, that we can claim for our Institution, facilities for the prosecution of anatomy, not surpassed by those afforded by any other city, and indeed only equalled by a few—an ample number of subjects for dissection being obtained, and at just half the expense to the student, that is charged for them in the Philadelphia schools, in which the supply is so inadequate, that the professors are obliged to resort to other cities to obtain them. And shall I be believed when I state the astounding fact, that dissections have been discouraged in the Transylvania school at Lexington, by the Professor of Anatomy, "*lest the pupils should discover his scarcity of subjects.*" Incredible as this declaration may seem, I make it in the very words of one of the professors of that school, given in testimony before the Board of Trustees.

Thus far, our observations have been confined to the study of man in the healthy state: to the considera-

tion of his organs, as instruments, occupied in the regular and natural performance of those functions, the assemblage of which make up his vital economy. As the end of your professional pursuits will be the relief of his sufferings, the study of anatomy and physiology must be considered as merely preliminary to other investigations, more immediately relating to the objects you have in view. You must, therefore, in the next place, study him in a state of disease—his complex machine deranged in its actions—perverted in the relations of all its parts—crippled in its energies, and discordant in its operations. To consider him in these relations is the province of the pathologist, whose duty it is, to study the philosophy of the organization in its various departures from the healthy or normal state. This important branch of medical science is divided into general and special pathology; the first having for its object, the investigation of the generalities of disease considered in the abstract; the second, the study of the special characters of each affection, in its individual attributes, and without reference to general considerations. General pathology, therefore, comprises Nosology, or the definition, nomenclature, and classification of diseases; Ætiology, or the causes by which they are produced, and the seats they occupy in the organization; Seniology, or their symptoms, march, and termination; Diagnostics, or the act of distinguishing one disease from another; and Prognostics, or the rules for predicting their favorable or unfavorable termination. Special pathology, moreover, is divided into medical and surgical, as it is applied to internal or external diseases—the first being embraced in our schools, under the head of practice of medicine—the second being the province of surgery.

From this statement you will be enabled at once to perceive the extent and importance of general pathology. "Of all the parts of our art," says a distinguished writer, "there is none which presents so many attractions to the physician, because there is no other department of equal importance. It constitutes for him, a kind of centre, around which are ranged, at unequal distances, all the other natural sciences. The study of Anatomy and Physiology—of Chemistry and Natural Philosophy—of Botany and Materia Medica, are to him only an introduction to the study of pathology; and once he has given himself up to the last, he insensibly forgets most of the things he had previously learned, only retaining of his first impressions, those which are related intimately with the study of diseases."*

The prosecution of pathology, considered in all its relations, presents a boundless field for your contemplation. Even the division *Ætiology* alone, is more or less identified with almost every department of human knowledge. Whatever is capable of affecting the organization of man, whether physical or moral, falls within its domain. In its investigation, it will be necessary for you to consider all these influences; to investigate the qualities of the atmosphere; the influence of the winds; of electrical changes; of climate; soil; seasons; food; drinks; and clothing;—exercise; occupations; and habits;—age; sex and temperament;—mental pursuits; passions, &c. They are all capable of exercising an unfriendly influence on human life—Even the gentle zephyr, though freighted with the delicious perfume of ten thousand flowers, may bear upon its wings, the seeds of the pestilence, brooding

* Chomel, *Pathologie G n rale*.

destruction, and "tainting the red air with fevers, plagues, and death."

The department of Semiology, or as it is more properly denominated in its just application, Semiotics, is not less broad in its relations, or less important in the aid it is capable of affording to medical science. It has for its object the investigation of the symptoms of diseases, and the appreciation of their proper value. To cultivate it with success, it will be necessary for you to be profoundly acquainted with the intimate structure of the organic constituents of the frame, and the mysterious play of functions, by which all its actions are maintained. This preliminary knowledge will furnish a key to conduct you into the melancholy sanctuary, where disease revels in its work of destruction—and there you may read from the great book of nature, in language not to be misinterpreted, the symptoms of the multitudinous "ills to which flesh is heir to," and learn to trace them to their proper source. The symptoms and signs of disease, are but the outward manifestations of the suffering organs; they are the reflected images of the mischief that prevails within, and we accordingly find, that they are transmitted to our senses through all the avenues of the system, and under shades as diversified and protean like, as there are modifications of functional disturbance. To make a correct interpretation of the infinity of signs which are thus brought under observation, is, confessedly, one of the most difficult tasks a medical man has to perform. It is like attempting to form a just conception of the operations of a complicated piece of machinery, all the wheels and levers of which, are concealed from our view. It is only by long and patient observation at the bed side of the sick—within the echo of the cries and groans of the agonized and

the dying, that you can learn to triumph over these difficulties—that you can acquire those lights to direct you in founding rational indications for the cure of disease—in discriminating between their endless varieties; in predicting their termination, or what will be the issue of the melancholy struggle between life and death. When once achieved, nothing contributes more to display the triumphs of the art—to shed a lustre upon its cultivators;—to add an enduring fame to the honorable career of the physician; and to secure, under many circumstances of deep affliction, happiness and tranquillity to bosoms, which would otherwise be rent with despair. For the attainment of such noble results, you should consider no sacrifice too great. It is by such qualifications, that the truly great physician is distinguished from the horde of ignorant pretenders, who disgrace the ranks of the profession. No acquisition you can make in the pursuit of your profession, will afford you a more grateful reward in after life, than solid attainments in this. No information will secure to you more confidence and tranquillity of mind, in the practical exercise of your professional duties; and there is certainly no qualification more indispensable to enable you to discharge these important duties with success, or even safety. Semiology is not only the source of a large proportion of the knowledge you can acquire, of the nature, seat, and march of disease, but is also the very foundation of the whole art of diagnostics; and in its application to this latter purpose, it will be necessary for you to invoke, not only all those signs which are manifested through the functions, and the external habitude of the body, but also those which we denominate physical, because for their interpretation, we resort to means operating upon physical principles,

the most important of which are, percussion, and the stethoscope—decidedly the most inestimable contributions which have been made to medical science in modern times.

Intimately associated with semiology—indeed, constituting a part of it—is the investigation of the seats of diseases. Without entering at present into the question so much mooted in modern times, whether there is any foundation for the division of maladies into vital or dynamic, and organic, we think we may safely make the declaration, that in studying the seats of disease, pathological anatomy is our safest guide, although we may be compelled to confess, that there are many maladies, the nature and seats of which, it is inadequate to determine. Like healthy or physiological anatomy, it takes cognizance of both solids and fluids, and in its present improved and extended condition, is not, as formerly, confined to a mere sterile description of changes of form and texture, but at the same time, considers the vital actions by which they are produced, the laws concerned in their developement, the influence exercised by them upon the health of the individual, and their ultimate tendencies, under the various influences to which they may be exposed, either therapeutical, or hygienic. Viewed in these relations, it becomes an indispensable appendage to ætiology, symptomatology, diagnosis, prognostics, and therapeutics. It constitutes one of the most valuable resources in determining the character of disease; unravelling its intricate philosophy; directing the judgment of the physician and surgeon in establishing correct and rational indications of cure, and in the successful application of remedies. Speaking on this subject, a recent English reviewer remarks: “It is but a few short

‘ years since this department was a desert; it is now
 ‘ the fairest province in the land of science. Could the
 ‘ venerable fathers of our art, rise for one short hour
 ‘ from their graves, and observe the dissector and the
 ‘ draughtsman busy at their avocations—see their an-
 ‘ cient systems, and their toilsome observations over-
 ‘ thrown by labors which their infancy in philosophy,
 ‘ and their natural prejudices, could not appreciate,
 ‘ consigned to the earth-worm and the mole; view
 ‘ the morbid anatomist, deriding their dogmas, and pity-
 ‘ ing their credulity, those primitive sages would hurry
 ‘ to the land of spirits, and quit without reluctance a
 ‘ new world,—too wise or too insane to have aught of
 ‘ community with them. Could they who drew the
 ‘ bow, and fixed the arrow, see where it has sped, they
 ‘ would probably own that they had been but blind and
 ‘ short-sighted instruments in the hands of that power
 ‘ which guides the destiny, and determines the pro-
 ‘ gress of the human race. Bichat, Beillia, and the
 ‘ Hunters commenced the investigation of the anat-
 ‘ my of disease. Their era is scarcely passed away,
 ‘ yet the study on which they entered, has already
 ‘ revolutionized the practice and theory of medicine.”*

Eleven years ago, he who now has the honor to ad-
 dress you, delivered in this city, the first entire course
 of lectures on pathological anatomy ever given in
 America. Since then, attention has become so far
 awakened to its importance, that in many of the
 schools of our country, it has been incorporated into
 the regular scheme of medical education; and I may
 further mention, in evidence of the value which is at-
 tached to it abroad, that the last act of the great Du-
 puytren—certainly one of the ablest surgeons the

* Medico-chiurgical Rev., and Lecture on Anatomy by W. N. Baker, M. D. Balt.

world has produced, was to bequeath from his private fortune, the munificent sum of eight hundred thousand francs, to be applied to the creation of a chair of pathological anatomy, in the medical faculty of Paris.

But we must now turn from this subject, to advert for a moment, to another which, notwithstanding its attractions, has never been adequately appreciated in our medical schools. The department to which I allude is chemistry—that science which reveals to us the causes of the incessant changes which take place in the inorganic and organic materials of our globe—which treats of the endless mutations of matter; and in discovering the laws which direct them, renders them subservient to an augmentation of “the comforts ‘ and enjoyments of man, and the demonstration of the ‘ order, harmony, and intelligent design of the system of ‘ the earth.” The chemist no longer absorbed in golden visions of the transmutation of metals, or taken up in vain pursuits after the philosopher’s stone, has settled down to the more rational employment, of investigating the various changes which take place between the particles of matter, and by discovering the recondite laws which influence their affinities, making their labors instrumental in the improvement and extension of the useful arts,—the amelioration of the condition of society, and the discovery of new sources of enjoyment and social prosperity. Its application to the ordinary sources of industry; agriculture; the arts, &c., is alone sufficient to entitle it to the favorable consideration of every intelligent individual. But for you, it possesses other attractions. It not only furnishes you with many of the most valuable and potent means of relieving disease, but you will also be obliged to invoke its aid, to assist you in unravelling

some of the most impenetrable mysteries of physiology, and pathology. The human body has been compared to a laboratory, "in which are constantly going forward processes of various kinds, dependent on the operation of chemical affinities. The conversion of the various kinds of food into blood,—a fluid of comparatively uniform composition and qualities; the production of universal heat by the action of the air on that fluid, as it passes through the lungs; and the changes which the blood afterwards undergoes in its passage through the body—are all subjects of chemical inquiry." The whole of the processes of respiration, digestion, secretion, assimilation, &c., can only be understood by invoking the lights of chemical science as they are performed by the co-operation of its forces, with the equally inscrutable powers of vitality. And in a long list of diseases, as asphyxia, calculous disorders, diabetes, poisoning—those of perverted secretion and nutrition, &c., you cannot advance a single pace, in framing a correct pathological problem, or founding a rational therapeutic indication, without calling it to your aid. It is, therefore, no vain and idle pursuit; it is no dull and superfluous branch of your professional education; but rich in attractions; fertile in the extent of its application; and of inestimable value, as a subsidiary means to your other investigations.

Having spoken thus extensively of those studies which relate to man in his healthy and diseased states, and of the material influences to which his organization is exposed, it is time we should turn to the more immediate object of all your labors—the means of relieving the long list of maladies, to which he is liable. This is comprised under the general heads of materia

medica, and therapeutics: the first, having for its object the natural history, chemical and pharmaceutical preparation, medical properties, and modes of administration, of the various articles employed in the treatment of diseases; the second, their adaptation to the various shades of morbid action. In its special relations, therapeutics is divided in our schools, like special pathology, into medical and surgical; to which must be added that department of it, which relates to the diseases peculiar to the gentler sex, and their tender offspring. The importance of these branches of medical science is too obvious to require of me any argument to impress it upon your minds. Indeed, it may be remarked, that under the ultra-utilitarian notions, peculiar to our country, they are the only ones generally cultivated with proper zeal and devotion.

Materia medica, like the branches of which we have spoken, must be regarded as merely preliminary to the cure of diseases; but while it is related prospectively, with therapeutics on the one hand, it blends itself on the other, with chemistry, with botany, mineralogy, and zoology. In quest of remedies for mitigating human suffering, the votary of the healing art ranges over the three kingdoms of nature,—the animal, the vegetable, and the mineral,—and derives from each of them, a rich supply of means of warring against the invasions of disease and death. The empire of Flora, especially, spreads before him all her brilliant attractions, where

“ Ten thousand colors wafted through
 “ In magic glances, play upon the eye,
 “ Combining in their endless fairy forms,
 “ A wild creation.”

and from every part of her vast dominion, yields some soothing balm, to assuage the pangs of affliction, and

wrest from death, his threatened victim. From the crust and bowels of the earth, he also receives a bountiful supply of mineral substances, more precious in his hands, than all the gems of Golconda, or the accumulated treasures of Peru; and guided by a knowledge of their properties, and of the laws and susceptibilities of the frame, he learns to make a just application of them to the relief of human suffering. Yet these principles will not always suffice to lead to the discovery of the sanative value of an article. On the contrary, many of the most efficacious of our medicines, have been discovered by mere chance, and have had their virtues established by empirical trials; but their successful application can only be directed by accurate views of the principles of physiology and pathology. The store is already abundant to overflowing; yet how inadequate are all our means to meet some of the afflictive calamities of our species! Notwithstanding the prophetic prediction of the great Rush, the foot of the Alleghanies, has not yet furnished a flower that is an infallible cure for epilepsy; nor have the banks of the Monongahela, or the Potomac, given us a root capable of curing consumption. But we must not despair. The field before is wide. Almost every month brings forth some new remedy, capable of abating the amount of human suffering; and who knows but that another year, may make us acquainted with some medicine, capable of curing cancer, or tubercle, and of thus wresting from an untimely death, millions yet unborn!

Of medical and surgical therapeutics—or of the practice of medicine and surgery, I need not say much. A new era has dawned upon them since the discovery of general anatomy, and a complete revolution has

been effected in them, since the healing art has received the ameliorating influence derived from the lights which have been elicited by its successful cultivation. Medicine is no longer a flimsy tissue of vague speculations. Its votaries can no longer be captivated and bound in chains by the fascinations of systems. All these empty dreams, and unmeaning follies, have been compelled to give place to observation and induction. Sophistry has yielded to the lights of true philosophy; and the dictum of the master is now tested by the stern ordeal of clinical observation, and is only considered valid, so far as it is sustained by the ordeal of this searching scrutiny—Medical and surgical practice are now based upon the solid foundations of sound pathology, and the votary of the healing art, not content with the bare authority of a name, however imposing, interrogates nature for himself, and in seeking amongst the organs after death, for the ravages of disease, thus acquires new lights to guide him in his future career. Under this change of things, the boundaries of successful practice have been widened; the amount of mortality has been diminished; and the art proclaims daily triumphs, where its votaries were wont to stand, in sad and mute despair, and witness the relentless ravages of death. Surgery, too, the hand-maid of medicine, has shared in this cheering amelioration. Cases which were formerly consigned to the knife and the cautery, are now relieved with integrity of flesh and member; and in those deplorable cases, alas still too numerous! in which mutilation cannot be avoided, more accurate views of anatomy and pathology, conduct the knife of the operator with unerring security, through parts, with which our forefathers would have thought it certain death to meddle.

This is medicine and surgery as we would wish to array them before you. This course of close observation, and rigid induction, we would desire you to observe in the prosecution of your studies; and in order that you may put to the test, the principles inculcated from the respective chairs, we shall provide in the wards of our Infirmary, as many cases as possible for the purposes of clinical instruction in medicine and surgery. These will be at all times open to your inspection, and any errors we may promulgate, you will have an opportunity of detecting. For the attainment of this end, you may think our wards too small, and our materials too limited. I am anxious to correct a common error upon this subject. Look to the immortal labors of a Staal, a Richter, a Scarp, a Frank and a Hildebrandt,—whose works have shed a lustre upon medical science, and whose fame, as clinical instructors, will endure, as long as medicine is cultivated! They were all the fruits of a ward of a dozen beds, and this number of properly selected, and carefully observed cases, will do more to give you clear views of disease, than a hospital of a thousand beds, and an endless list of patients, badly assorted, and imperfectly analyzed.

There are other topics, Gentlemen, upon which I would gladly make a few remarks, had I not already trespassed unreasonably upon your patience. One of these, deserving in an especial manner such notice, is, Medical Jurisprudence,—a subject, which, notwithstanding its importance, has been most unaccountably neglected both by medical men and jurists. It has for its object, the application of “medicine and its collateral branches, to the construction, elucidation, and administration of the laws; and to the preservation of public health.” It therefore involves, not only the evi-

dence and opinions medicinal men are required to deliver before legal tribunals; but also the consideration of medical police, or legal enactments, for the preservation of the general health and welfare of communities.

By the aid of this department of science, the celebrated Rush has forcibly remarked,—“fraud and violence may be detected and punished; unmerited infamy and death may be prevented; the widow and the orphan may be saved from ruin; virgin innocence and purity may be vindicated; conjugal happiness and harmony may be restored; unjust and oppressive demands upon the services of your fellow-citizens may be obviated; and the sources of public misery, in epidemic and contagious diseases, may be removed.” After this detail, I need not insist upon its commanding claims upon your attention, and I should deem any attempt to urge upon you its importance, an insult to your understanding.

I must now cease from further comment. I have attempted to array before you a brief exposition of some of the leading topics which will claim your labors during the winter. You will perceive that they are sufficiently numerous and important, to occupy all your time, and demand all your exertions. The calling you have adopted, is one most dear to humanity, and I doubt not, you are sufficiently conscious of the heavy responsibilities which it imposes upon you, to feel yourselves impelled to strain every energy, to qualify yourselves, in a suitable manner, for the faithful discharge of the duties which will devolve upon you in future. Participating in this responsibility, I pledge my humble exertions to be rendered subservient to your aid, as far as they may be capable of light-

ening your labors, and leading you onward in the grateful march of improvement. The halls and cabinets of our institution, will throw open all their resources, to be appropriated to your advancement, and in behalf of my colleagues, I promise you their zealous co-operation, in spreading before you the rich treasures of medical science. We hold out no empty promises. We spread before you no allurements, to win you over to our institution. We desire no success, that we may not merit by our exertions in imparting sound medical instruction; least of all, do we wish to elevate ourselves, by detracting from the just pretensions of others. We claim for our institution advantages, which we conscientiously believe will be found, in the aggregate, equal to any that exist any where in our country; and in this, I feel secure in your concurrence, although I may have to ask your indulgence, for my own imperfections. It only remains for me to admonish you to make every exertion,—to summon every energy, in qualifying yourselves for the faithful discharge of the responsible duties of your calling. The rich and the poor are to be alike the objects of your care. Your avocations in after life, will lead you through many scenes, well calculated to rouse those sympathies, which drop as “gentle rain from heaven.” In the exercise of an active benevolence, you will often be called, where

“ Sin is leagued with gloomy death;
 “ Where guilt, worn out, leans on the tripple edge
 “ Of want, remorse, despair; where the winds
 “ Of winter pierce the naked orphan babe,
 “ And chill the mother’s heart, who has no home.”

But as disease makes no distinction; neither should you suffer yourselves to be seduced by the pomp and glitter of the abodes of opulence, to forget the cries of

distress, emanating from the humble cot of poverty and wretchedness. The smiles of an approving conscience will afford a rich requital for your labors in the cause of humanity, and as you pass through life, dispensing around you the heaven-born blessings of your art,—plucking out the sting of affliction, and hushing the cries of despair, the warm hearts of millions will extend to you the priceless reward of their gratitude, and future generations will speak of you, as benefactors of your species,



